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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/569,079

12/04/2006

Kenneth Hillel Peter Harris

P68780US1

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136 7590 04/23/2010

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EXAMINER

BARCENA, CARLOS

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

04/23/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/569,079	Applicant(s) HARRIS, KENNETH HILLEL PETER	
	Examiner Carlos Barcena	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 9 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Status of Claims

1. The amendment filed 03/09/2010 has been entered. Claims 1, 3, and 9 remain pending.
2. The previous 35 USC 112, first paragraph, rejections of claims 1, 3, and 9 for lack of written description are withdrawn in light of Applicant's amendment to claim 1, 3, and 9.
3. The previous 35 USC 102(b) and 103(a) rejections under Yates (3,650,783) and Yates (3,650,783) in view of Bird *et al.* (4,655,276), respectively, have been withdrawn. Yates teaches soluble trivalent metal, not finely divided particles including trivalent or tetravalent cations.
4. However, upon further consideration, a new ground(s) of rejection is made in view of Noble *et al.* (2,995,453).

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. **Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Noble *et al.* (2,995,453).**

Regarding claims 1 and 3, Noble discloses a coating composition comprising:

- colloidal silica (silica sol);
- zircon (a mineral including a tetravalent cation); and
- mono-aluminum phosphate (water soluble salt) (Example 1).

The zircon (Zr^{4+} , zirconium compound) has a mesh size of less than 350 reading on finely divided particles at a concentration of at least 0.01 wt.%.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noble *et al.* (2,995,453) in view of Yates (3,650,783).

Regarding claim 9, Noble teaches the coating composition consists essentially of a silica sol, a source of phosphate (*e.g.* mono-aluminum phosphate or phosphoric acid), and refractory materials (*e.g.* zircon) (col. 1, lines 52-57).

Noble does not teach wherein the water soluble salt is selected from one or more of an alkali phosphate or sodium or potassium hypophosphite.

Yates, also directed to colloidal silica refractory coatings, teaches suitable sources of phosphate anions are both phosphoric acid and soluble phosphate salts such as sodium phosphate and potassium phosphate (col. 2, lines 43-46).

It would have been obvious to one of ordinary skill in the art at the time of invention to substitute the phosphates of Noble (*e.g.* mono-aluminum phosphate or phosphoric acid) for those taught by Yates (*e.g.* sodium phosphate and potassium phosphate) motivated by the fact that the substitution of one known element for another yields predictable results to one of ordinary skill in the art.

Response to Arguments

9. Applicant's arguments with respect to claim 1, 3, and 9 have been considered but are moot in view of the new ground(s) of rejection.

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10. However, Applicant argues differences between sodium and potassium phosphate and sodium and potassium hypophosphite. Instant claim 9 requires either an alkali phosphate or sodium and potassium hypophosphite as currently presented. Thus sodium and potassium phosphate would read on instant claim.

11. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the method of making, pH, and concentration ranges) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Barcena whose telephone number is (571) 270-5780. The examiner can normally be reached on Monday through Thursday 8AM - 5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer Michener can be reached on (571) 272-1424. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer K. Michener/
Supervisory Patent Examiner, Art Unit 1795

/Carlos Barcena/
Examiner, Art Unit 1795